Systems Analysis, Design & Testing Project

Kamile Kacinskaite

Test Cases

Name	TC-01: Verify Successful Login With Valid Credentials
Requirement	REQ-AUTH-01 (User Authentication — valid credentials must grant access)
Preconditions	System running; login screen displayed. User account exists with username 'validUser' and password 'CorrectPass123'.
Steps	1. Enter 'validUser' in the Username field. 2. Enter 'CorrectPass123' in the Password field. 3. Click the Login button.
Expected Results	1. System sends credentials to Authentication Service; returns sessionID. 2. User Interface displays the Dashboard screen. 3. User is authenticated (session active).

Name	TC-02: Verify Game Session Awards Tickets After Game Ends
Requirement	REQ-GAME-02 (Player must receive digital tickets based on score)
Preconditions	TC-01 completed — player is logged into the Game Console.

Steps	1. Click Start Game.
	2. Play the game until completion.
	3. Allow the game to call endGame().
Expected Results	1. Game Logic calculates tickets_won $\geq$ 0.
	2. Ticketing Service updates the player's ticket balance.
	3. UI displays tickets_won and new_balance.

Name	TC-03: Verify Successful Prize Redemption When Sufficient Tickets Are Available
Requirement	REQ-REDEEM-03 (System must deduct tickets and release prize if balance $\geq$ cost)
Preconditions	TC-02 completed—player has a ticket balance $\geq$ prize cost. Prize PZ1001 exists and is in stock.
Steps	1. Player requests prize PZ1001.
	2. Attendant selects Prize PZ1001 in the Redemption UI.
	3. UI requests stock availability from Inventory Service.
	4. Confirm the displayed cost.
	5. Attendant clicks Redeem.
Expected Results	1. Inventory Service returns inStock = true and cost.
	2. Ticketing Service deducts ticket cost; system returns new_balance.
	3. Inventory Service updates stock.
	4. UI displays 'Prize ready'.
	5. Prize is handed over to the player.

Name	TC-04: Verify Ticket Validation Rejects an Expired Ticket
Requirement	REQ-VALID-04 (System must reject tickets with expired date)
Preconditions	Validation Device connected. Ticket TKT-EXPIRED-22 exists with expiry_date < today.
Steps	1. Scan ticket TKT-EXPIRED-22 on the Validation Device. 2. Device sends validation request to Ticketing Service. 3. Ticketing Service fetches ticket data and checks rules.
Expected Results	1. System determines ticket is expired. 2. Ticketing Service returns error 'expired'. 3. Validation Device displays invalid ticket message.

Name	TC-05: Verify Admin Can Generate System Activity Report
Requirement	REQ-REPORT-05 (Reporting module must generate downloadable reports)
Preconditions	Admin logged into Reporting UI with sufficient clearance. Valid date range selected.
Steps	1. Admin selects Activity Report. 2. Admin enters date range and clicks Generate Report. 3. Reporting Service fetches data from all databases. 4. Reporting Service aggregates datasets.
Expected Results	1. System generates a report_file. 2. UI displays Download prompt. 3. Report contains accurate activity, gameplay, and redemption metrics.